

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A substrate for use in a perpendicular magnetic recording medium, comprising a blank substrate and a soft magnetic layer comprised of a film of phosphorus- or boron-containing cobalt alloy formed on the blank substrate by electroless plating, the electroless plated film of the cobalt alloy having surface roughness Ra in the range of 0.05 nm to 1 nm.
2. (currently amended): The substrate for use in a perpendicular magnetic recording medium according to Claim 1, wherein a number of defects occurring on a surface of the electroless plated film of the cobalt alloy and measuring 0.1 μ m or more in diameter and 7 nm or more in depth is less than 5 per surface corresponding to a surface on one side of a substrate having a diameter of 2.5 inches.
3. (currently amended): The substrate for use in a perpendicular magnetic recording medium according to claim 1, wherein a number of projections occurring on the surface of the electroless plated film of the cobalt alloy and measuring 0.1 μ m or more in diameter and 7 nm or more in height is less than 5 per surface corresponding to a surface on one side of a substrate having a diameter of 2.5 inches.

4. (original): The substrate for use in a perpendicular magnetic recording medium according to any one of claims 1 to 3, wherein the electroless plated film of the cobalt alloy has a phosphorus content in the range of 1 mass% to 30 mass%.

5. (original): The substrate for use in a perpendicular magnetic recording medium according to any one of claims 1 to 3, wherein the electroless plated film of the cobalt alloy has a boron content in the range of 0.1 mass% to 10 mass%.

6. (currently amended): The substrate for use in a perpendicular magnetic recording medium according to claim 1~~any one of claims 1 to 5~~, wherein the electroless plated film of the cobalt alloy has a thickness in the range of 0.1 μm to 5 μm .

7. (currently amended): A method for the production of a substrate for use in a perpendicular magnetic recording medium, comprising a step of forming on a blank substrate a soft magnetic layer comprised of a film of phosphorus- or boron-containing cobalt alloy by electroless plating and a step of polishing a surface resulting from the step of forming the film by the plating.

8. (original): The method for the production of a substrate for use in a perpendicular magnetic recording medium according to claim 7, wherein the polishing step removes the electroless plated film of the cobalt alloy in a depth in the range of 0.15 μm to 10 μm and thins the electroless plated film of the cobalt alloy to a thickness in the range of 0.1 μm to 5 μm .

9. (original): The method for the production of a substrate for use in a perpendicular magnetic recording medium according to claim 7 or 8, wherein the polishing step uses polishing liquid containing water and abrasive grains and further contains at least one member selected from the group consisting of an oxidizing agent, a chelating agent and a pH-adjusting agent.

10. (original): The method for the production of a substrate for use in a perpendicular magnetic recording medium according to claim 9, wherein the polishing liquid has a pH value in the range of 3 to 9.5.

11. (currently amended): The method for the production of a substrate for use in a perpendicular magnetic recording medium according to ~~claim 9~~^{or} 10, wherein the abrasive grains contained in the polishing liquid have a concentration in the range of 1 mass% to 30 mass%.

12. (currently amended): The method for the production of a substrate for use in a perpendicular magnetic recording medium according to ~~claim 9~~^{any one of claims 9 to 11}, wherein the abrasive grains contained in the polishing liquid are SiO₂ grains having an average particle diameter (D50) of 20 nm or less.

13. (currently amended): The method for the production of a substrate for use in a perpendicular magnetic recording medium according to ~~claim 9~~^{any one of claims 9 to 12}, wherein the oxidizing agent contained in the polishing liquid is hydrogen peroxide.

14. (currently amended): The method for the production of a substrate for use in a perpendicular magnetic recording medium according to claim 9any one of claims 9 to 13, wherein the chelating agent contained in the polishing liquid contains at least one compound selected from the group consisting of EDTA, citric acid and succinic acid.

15. (currently amended): The method for the production of a substrate for use in a perpendicular magnetic recording medium according to claim 9any one of claims 9 to 14, wherein the pH-adjusting agent contained in the polishing liquid contains at least one member selected from the group consisting of aqueous ammonia, water-soluble organic acid and salts thereof.

16. (new): The substrate for use in a perpendicular magnetic recording medium according to claim 1, wherein the electroless plated film is a film that does not contain a magnetic wall.

17. (new): The substrate for use in a perpendicular magnetic recording medium according to claim 4, wherein the phosphorus content is in the range of 1 mass% to 10 mass%.

18. (new): The substrate for use in a perpendicular magnetic recording medium according to claim 1, wherein the electroless plated film of the cobalt alloy has a phosphorus content in the range of 3 mass% to 15 mass%.

19. (new): The substrate for use in a perpendicular magnetic recording medium according to claim 1, wherein the electroless plated film of the cobalt alloy has a phosphorus content in the range of 3 mass% to 10 mass%.